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Attorneys for Defendant APPLE INC.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
(SAN JOSE DIVISION)

GPNE, CORP.
 	
        Plaintiff,
 	
  v.
 	
APPLE INC.,
 	
        Defendant.
	Case No. 5:12-cv-02885-LHK
	
	APPLE'S *DAUBERT* MOTION TO EXCLUDE TESTIMONY OF DR. ESMAEL DINAN
	
	HEARING REQUESTED
	
	Date: April 3, 2014
	Time: 1:30 p.m.
	Place: Courtroom 8, 4th Floor
	Judge: Hon. Lucy H. Koh

NOTICE OF MOTION

TO ALL PARTIES AND COUNSEL OF RECORD:

PLEASE TAKE NOTICE that on April 3, 2014, or as soon thereafter as the matter may be heard in the United States District Court for the Northern District of California, Apple Inc. ("Apple") respectfully requests this Court to hear Apple's motion to exclude certain testimony of GPNE's expert Dr. Esmael Dinan. Apple's motion is based on this Notice of Motion, Motion to Exclude, and the supporting declaration of Christopher O. Green filed herewith; the Reply papers to be filed; all papers and pleadings on file in this action; and such evidence and argument as may properly be presented at or before the hearing on this matter.

STATEMENT OF RELIEF TO BE REQUESTED

Pursuant to Federal Rule of Evidence 702, Apple moves the Court to exclude certain opinions contained in GPNE expert Dr. Esmael Dinan's January 4, 2014 report regarding alleged infringement of GPNE's asserted patent claims ("Infringement Report").

Apple moves the Court to exclude as unreliable all opinions in Dr. Dinan's Infringement Report related to the late-produced data from testing Dr. Dinan performed, due to pervasive flaws in Dr. Dinan's testing methodology and Apple's inability to challenge the tests and provide an adequate record for the jury and this Court.

I.   **INTRODUCTION**

As set forth in Apple's concurrently filed Motion for Summary Judgment, Apple's accused products cannot qualify as a "pager with two-way data communications capability that transmits wireless data communications on a paging system that operates independently from a telephone network" as required by the Court's claim construction of "node," a limitation that appears in each and every asserted claim. Recognizing that this is a fact that it cannot dispute with actual evidence, GPNE stuck its head in the sand and did not seek any discovery from any providers of

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paging systems or telephone networks (or from any of the providers of networks on which Apple's products actually operate, such as the cellular carriers). Instead, GPNE opted to "test" the accused products by first modifying Apple's devices and then testing them in a cell phone emulator environment that was mocked up to create an artificial and illusory "paging system" that does not exist in real life. Even if the testing environment had not been concealed from Apple and subsequently destroyed, as set forth in Apple's concurrently filed Motion to Strike, the testing methodology itself was unreliable and inappropriate for the proposition for which it would be offered.

At bottom, Dr. Dinan's testing methodology did not objectively measure the behavior of the accused devices as programmed and sold by Apple and as used in the real world. Rather, Dr. Dinan purposefully created a hypothetical outcome by:

1. modifying the devices from their as-sold state to make them work in his artificial testing environment;

2. selecting configuration parameters for the testing equipment that would change the behavior of the devices; and

3. relying on selective data that can at best be said to be hypothetical.

GPNE relies on these tests to "prove" that in an artificial environment (which, as fully explained in Apple's concurrently filed Motion to Strike Testimony of GPNE's Expert Dr. Esmael Dinan, GPNE subsequently destroyed), it can make modified Apple products "infringe." Such evidence is so inapposite that no reasonable jury could rely on it as substantial evidence to support a finding of infringement. Therefore, to avoid the additional costs and burdens to this Court and to obviate subjecting jurors to confusing testimony based on hypotheticals and hyperbole, Apple respectfully requests that this Court resolve this discrete issue at this juncture and exclude on
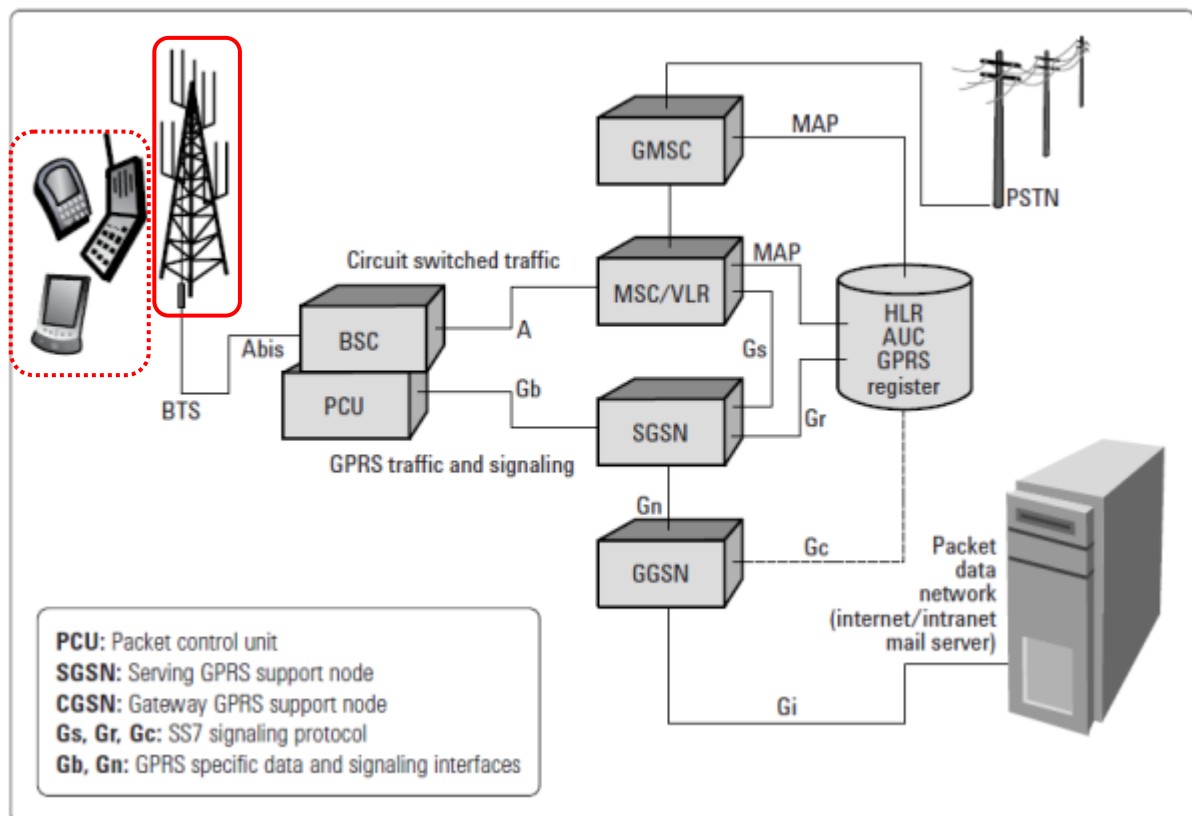
1   methodological grounds any testimony or evidence of GPNE's unreliable test environment and

2   data.

3   **II.   FACTUAL BACKGROUND**

4   **A.   Dr. Dinan's Test Environment**

5   Dr. Dinan's Infringement Report itself is 142 pages long, but attaches nearly 15,000 pages

6   of exhibits never produced during fact discovery. Nearly all of the exhibits are printouts of test

7   data that he generated in his laboratory using Agilent test equipment he rented, assembled,

8   programmed and subsequently dismantled and returned. Dr. Dinan relied on the testing to

9
10 conclude that certain Apple devices that operate on GSM/GPRS cellular telephone networks (in

11 the United States, e.g., AT&T and T-Mobile) infringe. For context, a diagram of the major

12 components of a GSM/GPRS network is shown below.

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Figure 1. GPRS network architecture

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PCU: Packet control unit
SGSN: Serving GPRS support node
CGSN: Gateway GPRS support node
Gs, Gr, Gc: SS7 signaling protocol
Gb, Gn: GPRS specific data and signaling interfaces

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(Ex. A, Agilent Understanding General Packet Radio Service (GPRS) Application Note 1377 at p. 5 (red rectangles added).)[1] This figure is taken from documentation produced by Agilent, the same company that manufactures the equipment Dr. Dinan rented.

GPNE reads its patents' asserted claims on certain sequences of communications between a mobile device such as an iPhone (shown inside the dashed red rectangle above) and a GSM/GPRS Base Transceiver Station ("BTS"—or simply "base station"—shown inside the solid red rectangle above). (Ex. B, Dinan Inf. Rpt. at ¶ 65 ("As this technology is implemented in the Accused Devices, this back-and-forth messaging takes places between an Accused Device and a cellular base station."); Ex. C, Dinan Dep. Tr. at 88:16-19 (equating "base station" and "base transceiver station").)

To perform his testing, Dr. Dinan rented Agilent test equipment that purports to emulate the operation of a GSM/GPRS base station. Because the Apple devices are not designed to operate in the Agilent test environment, to test an Apple device Dr. Dinan modified the device by inserting an Agilent Subscriber Identity Module ("SIM") card specifically designed to enable the Apple device to operate in the Agilent environment, and then proceeded to record the messages exchanged between the Apple device under test and the emulated base station. (Ex. B, Dinan Inf. Rpt. at ¶ 44 ("The combination of E5515B/C with embedded GPRS lab application emulates a GPRS network including a GPRS base station.").) GPNE did not produce this highly-configurable testing equipment or the Agilent SIM card during discovery, nor could it because GPNE's expert secretly dismantled and returned the equipment before ever disclosing to Apple that the testing occurred.

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[1] All exhibits are to the concurrently-filed Declaration of Christopher O. Green.

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III.   ARGUMENT

A.   All of Dr. Dinan's Testing-Related Opinions Should Be Excluded as Unreliable

3   A party proffering expert testimony must establish by a preponderance of the evidence that

4   it is sufficiently reliable. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 592 n.10 (1993).

5   It is sufficiently reliable only if it (1) is based on sufficient facts or data; (2) is the product of

6   reliable principles and methods; and (3) applies the principles and methods reliably to the facts.

7   Fed. R. Evid. 702; *Daubert,* 509 U.S. at 591-592. *Daubert* provided a non-exhaustive list of

8   factors for determining whether expert testimony is sufficiently reliable to be admitted into

9   evidence, including: (1) whether the scientific theory or technique can be (and has been) tested, (2)

10 whether the theory or technique has been subjected to peer review and publication, (3) whether

11 there is a known or potential error rate, and (4) whether the theory or technique is generally

12 accepted in the relevant scientific community, but emphasized that the overall inquiry is a

13 "flexible one." *Daubert*, 509 U.S. at 593-95.

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15   As the Ninth Circuit observed on remand of *Daubert*, it is exceedingly common for an

16 expert to be able to present compelling reasons why her data and/or methodology are reliable.

17 *Daubert v. Merrell Dow Pharms., Inc.*, 43 F.3d 1311, 1316 (9th Cir. 1995). Thus, the Court held,

18 "the expert's bald assurance of validity is not enough," and "the party presenting the expert must

19 show that the expert's findings are based on sound science, and this will require some objective,

20 independent validation of the expert's methodology." *Id.* GPNE cannot meet this burden.

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22   After the parties represented to the Court that the construction of the term "node" would be

23 case dispositive (Dkt. No. 66 at 4), the Court construed the term "node" to require data

24 communications "on a paging system that operates ***independently*** from a telephone network."

25 (Dkt. No. 87 at 58 (emphasis added).) Notwithstanding this construction, GPNE continued to

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point to the GPRS and LTE cellular standards as satisfying the "paging system" limitation. It is

undisputed, however, that Apple's accused products utilize the GPRS and/or LTE standards on

actual U.S. cellular telephone networks (e.g., AT&T, Sprint, Verizon, T-Mobile), and therefore

cannot infringe any asserted claim. GPNE understood this. That is why GPNE commissioned Dr.

Dinan to construct a simulated environment with test equipment that GPNE alleges had just

enough functionality disabled for Dr. Dinan to conclude that when he connects an Apple device to

his hypothetical, non-real world environment, it operates "independently from a telephone

network."

Dr. Dinan's testing methodology is unreliable at least for the reason that Dr. Dinan's test

environment is **not** the environment in which Apple's products are designed to operate within and,

in fact, are not a "real" environment that actually exists. Dr. Dinan admitted that he had to modify

the accused devices from their as-sold state to even allow them to connect to his Agilent test

equipment, and once connected his test environment exchanged a different set of signals with the

accused devices than those used in an actual cellular phone network.

### 1.   Dr. Dinan's Artificial Environment Does Not Reliably Show How Apple's Accused Devices Were Designed to Operate

As explained above, GPNE's infringement theories rise and fall on being able to show that

Apple's accused devices communicate "on a paging system that operates *independently* from a

telephone network." For all the reasons articulated in Apple's Motion for Summary Judgment,

they don't.

Disregarding the myriad of well-established and authoritative resources that make it

abundantly clear that paging systems and cellular networks are not one and the same (see Apple's

concurrently filed Motion for Summary Judgment, Dkt. No. 187) and that cellular phones and

pagers are two fundamentally different classes of devices with different purposes operating

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discretely in their own respective environments (a fact this Court implicitly recognized in its

Markman Order), GPNE avoided discovery that would yield real evidence and instead attempted

to create a hypothetical world that intentionally blurred the lines between paging systems and

cellular phone networks.

　　To understand what GPNE did, one must understand the facts—not the facts of this case,

but the facts related to GPNE's actions. It is undisputed that the cellular telephone networks—on

which Apple's accused devices operate—utilize the same network of base stations and radio links

for all cellular communications, regardless of type of data being communicated.[2] This common

network path is illustrated by the red arrows added to Agilent's exemplary GSM/GPRS diagram:

Figure 1. GPRS network architecture

_____
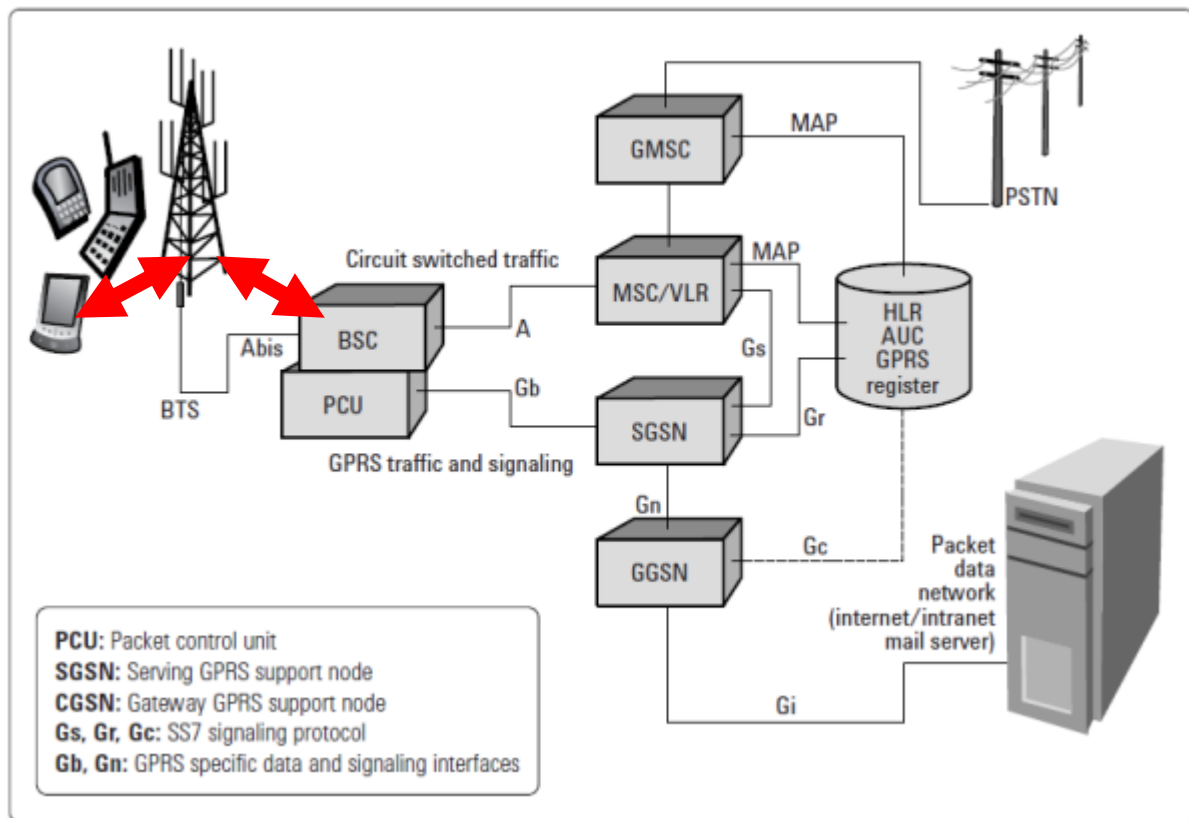
[2] Dr. Dinan agrees that voice and data both are routed through the same network of cellular base stations and base station controllers. (Ex. C, Dinan Dep. Tr. at 88:16-89:7.)

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(Ex. A at p. 5 (arrows added).)

Thus, all communications are transmitted between the mobile device (e.g., iPhone) and the base station (cell tower), and between the base station and base station controller. From that point, voice and data, for example, may take two different paths, simply because voice signals may be routed to the public switched telephone network ("PSTN"), while data packets may be routed to a packet data network such as the Internet. (This is why you can use your cell phone to call your grandmother on her home line and also to send emails.)

Recognizing the Court's requirement that the accused devices communicate "independently from a telephone network," GPNE explored during discovery whether it could somehow take the position that when phones are used to send data, the data is sent on a network that communicates independently from the telephone network. Taking that position, however would require them to argue that the carriers' networks of cell towers and supporting infrastructure (represented by the base station and base station controller in the above diagram) *both are and are not* part of the carriers' telephone network, depending on whether the phone is transmitting voice or data at any particular instant.

Given the futility of such a theory, GPNE decided to (i) create its own environment that would simulate only the portions of the GSM telephone network that handle data transmission and (ii) use a special SIM card with the Apple phones to make them operate in the artificial environment.

Even if Apple's accused devices did not make any use of GSM resources while connected to Dr. Dinan's simulated environment (a fact Apple disputes but is unable to show given Dr. Dinan's destruction of his test environment), the very foundation of his testing is unreliable because he had to modify Apple's accused devices to make them work in his test environment.

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Specifically, Dr. Dinan had to insert into Apple's Accused Devices a test SIM card provided by Agilent, the manufacturer of his rented test equipment. (Ex. B, Dinan Inf. Rpt. at ¶ 56.) He admitted in his deposition that the Agilent test SIM card, along with "activation" of the accused device in the test environment was required for him to conduct his testing. (Ex. C, Dinan Dep. Tr. at 61:12-21.) Apple's accused products are not sold with Agilent SIM cards, and would not otherwise connect to the Agilent test environment without the Agilent SIM cards. He further admitted that by changing the configuration parameters of the equipment in his test environment, he could change the results of the test or the behavior of the device under test. (*Id.* at 58:6-11.) These modifications render his alleged "evidence" of infringement speculative, unreliable, and unusable. *See, e.g., Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1330 (Fed. Cir. 2001) ("[T]hat a device is capable of being modified to operate in an infringing manner is not sufficient, by itself, to support a finding of infringement.").

What is more, once Dr. Dinan connected Apple's accused devices to his test environment, his own testing data shows that the exchanged messages are not the same as those exchanged in real life, in an actual cellular telephone network. The Agilent test equipment itself inserted messages into Dr. Dinan's test data—messages upon which Dr. Dinan then relied. As one example, in his infringement analysis Dr. Dinan repeatedly relied on a message that is shown in his test data as being a "MTAL" protocol message:

The following figure shows "Random Access" signal captured in Wireless Protocol Advisor in line 1050 of the iPhone 4S test call log:

Protocol		Message	
MTAL		Random access	
Direction	Time Unsynch	System Time	Protocol
<- Rev/Up	23:06:11.993135	899603	MTAL

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(Ex. B, Dinan Inf. Rpt. at, e.g., pp. 53, 65, 73.) The Agilent test equipment documentation explains that "MTAL" stands for "mobile test adaptation layer," and is "*a proprietary protocol layer*" that provides *additional information* about each message that is very useful for troubleshooting." (Ex. D, Agilent E6584A Wireless Protocol Advisor Operation Guide at 24 (emphasis added).) Dr. Dinan agreed in his deposition that the MTAL protocol is used by the Agilent test equipment, and said he did not know if it was used in real, commercial cellular networks. (Ex. C, Dinan Dep. Tr. at 54:13-19, 55:10-19.) Thus, Dr. Dinan relies on an artificial message *sent by the very test environment he created* to satisfy a limitation of the asserted claims.

Given the vague, error-prone, and unrepeatable nature of Dr. Dinan's testing, the Court should exercise its gatekeeping role and exclude Dr. Dinan's testimony on the subject. Were the testimony to reach the jury, it would be at the risk of confusing Dr. Dinan's considerable background in wireless cellular technology with the appropriateness and rigor of his testing methodology in this case, which, as shown above, are distressingly absent.

IV.   CONCLUSION

For the foregoing reasons, Apple respectfully requests that the Court exclude from trial any testimony by Dr. Dinan on his testing of Apple's accused devices.

Dated: February 28, 2014   FISH & RICHARDSON P.C.

                                             By: */s/ Christopher O. Green*
                                                  Christopher O. Green

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CERTIFICATE OF SERVICE

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The undersigned hereby certifies that on February 27, 2014, all counsel of record who are

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deemed to have consented to electronic service are being served with a copy of **APPLE'S**

4
MOTION TO EXCLUDE TESTIMONY OF GPNE'S EXPERT DR. ESMAEL DINAN via

5
the Court's CM/ECF system.

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By: */s/ Christopher O. Green*
Christopher O. Green

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